IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A method for determining a nucleotide sequence of a single nucleic acid molecule, which comprises:

(a) immobilizing a nucleic acid molecule onto the surface of a solid, wherein the surface of the solid is an inner wall of a capillary and a hydrophobic solvent is provided which flows through the capillary;

(b) annealing a primer to said nucleic acid molecule, wherein said primer has a sequence complementary to a part of a sequence of the nucleic acid molecule;

(c) providing a solution which contains a DNA polymerase and only one type of dye-labeled dNTP, where N is A, T or U, G or C, or an RNA polymerase and only one type of dye-labeled NTP, where N is A, U, G or C, to said immobilized nucleic acid molecule, and allowing the dye-labeled dNTP or NTP to react with the 3' end of said primer, whereby the dye-labeled dNTP or NTP, which forms a base-pair with a base in the nucleic acid molecule at a position where the dye-labeled dNTP or NTP reacts with the 3' end of said primer and is bound to the primer by action of the polymerase, wherein the dye-labeled dNTP or NTP is labeled with dye thereby permitting the incorporation of a sequential dNTP or NTP to the 3' end of the dye-labeled dNTP or NTP and wherein said solution consists of a droplet in which an aqueous solution containing said dye-labeled dNTP or NTP, is entrapped within ~~a~~ the hydrophobic solvent ~~liquid~~;

(d) detecting a bound, dye-labeled dNTP or NTP;

(e) disrupting the dye molecule of the bound, dye-labeled dNTP or NTP;

(f) repeating (c) to (e) while changing the type of dye-labeled dNTP or NTP in turn, to sequentially bind dNTPs or NTPs which forms a base-pair with the nucleotides of the nucleic acid molecule; and

(g) determining a nucleotide sequence of the nucleic acid molecule based on the types of the sequentially bound dNTPs or NTPs.

Claim 2 (Cancelled).

Claim 3 (Previously presented): The method of Claim 1, wherein (d) comprises optically detecting the dye molecule of said dye-labeled dNTP or NTP.

Claim 4 (Previously presented): The method of Claim 1, wherein (d) comprises exciting dye molecules by irradiation of a laser beam and detecting a fluorescent signal.

Claim 5 (Original): The method of Claim 1, wherein said detection is performed using a confocal fluorescence microscope system.

Claim 6 (Previously presented): The method of Claim 4, wherein said disrupting the dye molecules in (e) comprises irradiating with a laser beam stronger than the laser beam in (d).

Claim 7 (Original): The method of Claim 1, wherein said dye is a fluorescent dye.

Claim 8 (Original): The method of Claim 1, wherein said dye-labeled dNTP is labeled with rhodamine, tetramethyl rhodamine (fluorescein) Rhodamine 6G, fluorescein isothiocyanate, or 4-fluoro-7-nitro-benzofurazon (Texas Red).

Claim 9 (Original): The method of Claim 1, wherein said dye-labeled NTP is labeled with rhodamine, tetramethyl rhodamine (fluorescein) Rhodamine 6G, fluorescein isothiocyanate, or 4-fluoro-7-nitro-benzofurazon (Texas Red).

Claim 10 (Previously presented): The method of Claim 1, wherein said dNTP or NTP is each labeled with the same dye.

Claims 11-22 (Cancelled).

Claims 23-25 (Cancelled).

Claim 26 (Currently amended): A method for determining a nucleotide sequence of a single nucleic acid molecule, which comprises:

(a) immobilizing a primer onto the surface of a solid, wherein the primer comprises a sequence complementary to a part of a sequence in the nucleic acid molecule, wherein the surface of the solid is an inner wall of a capillary and a hydrophobic solvent is provided which flows through the capillary;

(b) annealing a nucleic acid molecule to the immobilized primer;

(c) providing a solution which contains a DNA polymerase and only one type of dye-labeled dNTP, where N is A, T or U, G or C, or an RNA polymerase and only one type of dye-labeled NTP, where N is A, U, G or C, to said immobilized primer, and allowing the dye-labeled dNTP or NTP to react with the 3' end of said primer, whereby the dye-labeled dNTP or NTP, which forms a base-pair with a base in the nucleic acid molecule at a position where the dye-labeled dNTP or NTP reacts with the 3' end of said primer and is bound to the primer by action of the polymerase, wherein the dye-labeled dNTP or NTP is labeled with dye thereby permitting the incorporation of a sequential dNTP or NTP to the 3' end of the

dye-labeled dNTP or NTP and wherein said solution consists of a droplet in which an aqueous solution containing said dye-labeled dNTP or NTP, is entrapped within ~~a~~ the hydrophobic solvent ~~liquid~~;

(d) detecting a bound, dye-labeled dNTP or NTP;

(e) disrupting the dye molecule of the bound, dye-labeled dNTP or NTP;

(f) repeating (c) to (e) while changing the type of dye-labeled dNTP or NTP in turn, to sequentially bind dNTPs or NTPs which forms a base-pair with the nucleotides of the nucleic acid molecule; and

(g) determining a nucleotide sequence of the nucleic acid molecule based on the types of the sequentially bound dNTPs or NTPs.

Claim 27 (Cancelled).

Claim 28 (Previously presented): The method of Claim 26, wherein (d) comprises optically detecting the dye molecule of said dye-labeled dNTP or NTP.

Claim 29 (Previously presented): The method of Claim 26, wherein (d) comprises exciting dye molecules by irradiation of a laser beam and detecting a fluorescent signal.

Claim 30 (Previously presented): The method of Claim 26, wherein said detection is performed using a confocal fluorescence microscope system.

Claim 31 (Previously presented): The method of Claim 29, wherein said disrupting the dye molecules in (e) comprises irradiating with a laser beam stronger than the laser beam in (d).

Claim 32 (Previously presented): The method of Claim 26, wherein said dye is a fluorescent dye.

Claim 33 (Previously presented): The method of Claim 26, wherein said dye-labeled dNTP is labeled with rhodamine, tetramethyl rhodamine (fluorescein) Rhodamine 6G, fluorescein isothiocyanate, or 4-fluoro-7-nitro-benzofurazon (Texas Red).

Claim 34 (Previously presented): The method of Claim 26, wherein said dye-labeled NTP is labeled with rhodamine, tetramethyl rhodamine (fluorescein) Rhodamine 6G, fluorescein isothiocyanate, or 4-fluoro-7-nitro-benzofurazon (Texas Red).

Claim 35 (Previously presented): The method of Claim 26, wherein said dNTP or NTP is each labeled with the same dye.

Claim 36 (Cancelled).

Claim 37 (New) The method of claim 1, wherein the hydrophobic solvent is mineral oil.

Claim 38 (New) (New) The method of claim 26, wherein the hydrophobic solvent is mineral oil.